SANDWICHED RADIOPAQUE MARKER ON COVERED STENT Application No. 16/600.022 Amendment dated May 26, 2011 Reply to Final Office Action of April 28, 2011

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

1 (Currently Amended) A stent comprising a single tubular framework having an outer surface and an inner surface and a plurality of interconnected struts, the struts comprising a plurality of screentine bands and further comprising a generally linear connector strut attaching a peak of one serpentine band to a trough of an immediately adjacent serpentine band at the respective apices of each of the peak and the trough, wherein the respective apices of the immediately adjacent serpenting bands are axially aligned and connected with each other in opposing directions such that the single tubular framework has no gaps between the respective apices of the immediately adjacent serpentine bands, and wherein the opposing apices reduce a distance between the immediately adjacent serpentine bands and attach to the generally linear connector strut, the framework further comprising an outer covering of PTFE and an inner covering of PTFE, the outer covering extending along at least a portion of the outer surface of the expandable framework, the inner covering extending along at least a portion of the inner surface of the expandable framework, at least a portion of the inner and outer coverings being contiguous, the stent further comprising at least one radiopaque marker of a first set that is directly and only attached to the plurality of interconnected struts at the generally linear connector strut and disposed between the inner covering and the outer covering and placed to indicate a deployed position of a covered region of the stent, the framework further comprising a circumferential non-serpentine band at at least one distal end of an uncovered region of the framework comprising at least one radiopaque marker of a

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second set placed to indicate a deployed position of the uncovered region of the

stent, wherein a comparison of the first set and the second set defines an orientation

of the inner and outer-covering of the PTFB in-relation to the at-least one end-of the

framework.

(Original) The stent of claim 1 wherein the PTFE is in the form of expanded

PTFE.

3. (Currently Amended) The stent of claim 1 wherein at least one [[the]]

radiopaque marker of the first set is in the form of a radiopaque marker band.

4. (Previously Presented) The stent of claim 3 wherein the marker band is

wound about a portion of the connector strut.

5. (Previously Presented) The stent of claim 3 wherein the marker band is a

split tube crimped to the connector strut.

6. (Currently Amended) The stent of claim 1 wherein at least one [[the]]

radiopaque marker of the first set is embedded in a portion of the connector strut.

7. (Currently Amended) The stent of claim 1 wherein at least one [[the]]

radiopaque marker of the first set is located adjacent an uncovered region of the

stent

8. (Previously Presented) The stent of claim 1 wherein the connector strut

comprises an opening in which a disk-like radiopaque plug is embedded.

9. (Original) The stent of claim 1 comprising a plurality of radiopaque

markers.

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(Original) The stent of claim 9 wherein the PTFE is in the form of expanded

PTFE

11. (Original) The stent of claim 10 wherein the PTFE on the outer surface and the PTFE on the inner surface of the framework are coextensive with one another.

 (Currently Amended) The stent of claim 11 wherein at least some of the radiopaque markers of the first set indicate at least one end of the PTFE on the inner and outer surfaces

13. (Currently Amended) The stent of claim 11 wherein at least some of the radiopaque markers of the first set indicate a first end of the PTFE on the inner and outer surfaces and others of the radiopaque markers indicate a second end of the PTFE on the inner and outer surfaces.

14. (Original) The stent of claim 13 sized for use in a cranial vessel.

15. (Original) The stent of claim 1 sized for use in a cranial vessel.

16. (Currently Amended) The stent of claim 1 wherein the radiopaque marker dees markers of the first and second set do not protrude beyond the outer surface and inner surfaces of the stent framework.

 (Currently Amended) The stent of claim 11 wherein the radiopaque marker does <u>markers of the first and second set do</u> not protrude beyond the outer surface and inner surfaces of the stent framework.

18. (Currently Amended) The stent of claim 12 wherein the radiopaque marker

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does markers of the first and second set do not protrude beyond the outer surface and inner surfaces of the stent framework.

- (Currently Amended) The stent of claim 13 wherein the radiopaque markers
  of the first and second set do not protrude beyond the outer surface and inner
  surfaces of the stent framework.
- 20 (Currently Amended) A stent comprising a single tubular framework having an outer surface and an inner surface and a plurality of interconnected struts, the struts comprising a plurality of serpentine bands and further comprising a generally linear connector strut attaching a peak of one serpentine band to a trough of an immediately adjacent serpentine band at the respective apices of each of the peak and the trough, wherein the respective apices of the immediately adjacent serpentine bands are axially aligned and connected with each other in opposing directions such that the single tubular framework has no gaps between the respective apices of the immediately adjacent serpentine bands, and wherein the opposing apices reduce a distance between the immediately adjacent serpentine bands and attach to the generally linear connector strut, the framework further comprising an outer covering of PTFE and an inner covering of PTFE, the outer cover extending along at least a portion of the outer surface of the framework, at least a portion of the inner and outer coverings being contiguous, the generally linear connector strut having at least one marker of a first set which is radiopaque or which may be visualized using magnetic resonance imaging, the marker of the first set directly and only attached to the plurality of interconnected struts at the generally linear connector strut and disposed between the inner coverings and the outer coverings and placed to indicate a deployed position of a covered region of the stent, the framework further comprising a circumferential non-serpentine band at at least one distat end of an uncovered region of the framework comprising at least one radiopaque marker of a second set placed to indicate a deployed position of the uncovered region of the

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stent, wherein a comparison of the first set and the second set defines an orientation of the inner and outer covering of the PTFE in relation to the at least one end of the

framework

21. (Withdrawn) A method of manufacturing a stent comprising the steps of

providing a stent framework comprising a plurality of interconnected struts, the

framework having an inner surface and an outer surface; providing radiopacity to the

stent framework in a desired region of the framework covering the inner surface of

the stent framework in the desired region of the stent framework with PTFE;

covering the outer surface of the stent framework in the desired region of the stent

framework with PTFE.

(Withdrawn) The method of claim 21 further comprising the steps of:

providing radiopacity to the stent framework in a plurality of desired regions;

covering the outer and inner surfaces of the stent framework with PTFE in each of

the desired regions.

(Withdrawn) The method of claim 22 wherein the radiopacity is provided

via radiopaque markers which are attached to the stent framework.

24. (Withdrawn) The method of claim 23 wherein each radiopaque marker is in

the form of a radiopaque material which is wound around a portion of the stent

framework.

25. (Withdrawn) The method of claim 23 wherein each radiopaque marker is in

the form of a radiopaque plug which is inserted into an opening in the stent

framework

26. (Withdrawn) The method of claim 21 wherein the radiopacity is provided in

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the form of a marker which marks an end of the PTFE on the inner and outer surface

of the stent.

27. (Withdrawn) The method of claim 22 wherein the radiopacity is provided in

the form of a plurality of markers which mark at least one end of the PTFE on the

inner and outer surface of the stent.

28. (Withdrawn) The method of claim 27 wherein the PTFE on the inner and

outer surfaces of the stent are coextensive with one another.

29. (Withdrawn) The method of claim 21 wherein the PTFE on the inner and

outer surfaces of the stent are coextensive with one another.

30. (Withdrawn) The method of claim 28 wherein the PTFE on the inner

surface is in the form of a first extruded tube of expanded PTFE and the PTFE on

the outer surface is in the form of a second extruded tube of expanded PTFE.

31. (Withdrawn) The method of claim 21 wherein the stent is sized for use in a

cranial vessel.

32. (Currently Amended) A covered stent comprising:

a single tubular stent framework having an interior surface, an exterior

surface and a first marker region, the framework comprising a plurality of serpentine

bands and further comprising a generally linear connector strut attaching a peak of

one serpentine band to a trough of an immediately adjacent serpentine band at the

respective apices of each of the peak and the trough, wherein the respective apices

of the immediately adjacent serpentine bands are axially aligned and connected with

each other in opposing directions such that the single tubular framework has no gaps

between the respective apices of the immediately adjacent serpentine bands, and

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wherein the opposing apices reduce a distance between the immediately adjacent serpentine bands and attach to the generally linear connector strut;

at least one radiopaque marker located within the first marker region of said framework, the marker directly and only attached to the plurality of serpentine bands at the generally linear connector strut and placed to indicate a deployed position of a covered region of the stent;

a circumferential non-serpentine band at at least one <u>distal</u> end of <u>an</u> <u>uncovered region of</u> the framework comprising at least one radiopaque marker of a second marker region <u>placed to indicate a deployed position of the uncovered region</u> of the stent; and

a covering of expanded PTFE covering the interior surface and exterior surface of said framework in the first marker region:

wherein a comparison of the first set and the second-set defines an orientation of the inner and outer-covering of the PTFE in relation to the at least one end of the framework.

33. (Currently Amended) A stent comprising a single tubular expandable framework having an outer surface and an inner surface, the tubular expandable framework comprising a plurality of serpentine bands, immediately adjacent serpentine bands having axially aligned and connected oppositely pointing apices such that the single tubular framework has no gaps between the respective apices of the immediately adjacent serpentine bands, wherein the oppositely pointing apices reduce a distance between the immediately adjacent serpentine bands, said framework further including linear connecting members connecting at least some of said oppositely pointing apices of the immediately adjacent serpentine bands, an outer covering of PTFE and an inner covering of PTFE, the outer covering extending along at least a portion of the outer surface of the expandable framework, the inner covering extending along at least a portion of the inner and outer coverings being

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contiguous, the stent further comprising at least one radiopaque marker of a first set

that is directly and only attached to the plurality of serpentine bands at the generally linear connecting members and disposed between the inner covering and the outer

linear connecting members and disposed between the inner covering and the outer covering and placed to indicate a deployed position of a covered region of the stent.

the framework further comprising a circumferential non-serpentine band at at least

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one distal end of an uncovered region of the framework comprising at least one radiopaque marker of a second set placed to indicate a deployed position of the

uncovered region of the stent, wherein a comparison of the first set and the second

set defines an orientation of the inner and outer covering of the PTFE in relation to

the at least one end of the framework.

34. (Previously Presented) The stent of claim 33, wherein both the inner covering and the outer covering do not extend along at least a portion of the

expandable framework.

35. (Previously Presented) The stent of claim 33, wherein the expandable

framework extends beyond both the inner covering and the outer covering.

36. (Previously Presented) The stent of claim 33, wherein at least a portion of

the inner covering is laminated to at least a portion of the outer covering.

37-39. (Canceled)

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